

Landowner Letter

DIVISION OF FISH & WILDLIFE

2010



Nancy Heaslip, NYDEC

Delaware Bat Count

Do you have bats roosting on your property or know of a roosting location?

Fish & Wildlife biologists are currently monitoring bat colonies state-wide and are looking for roosting sites. Biologists are monitoring for white-nose syndrome (WNS) - a disease that is causing mass mortality of bats in the northeastern United States.

To report a bat roosting site, or to learn more about white-nose syndrome visit:

www.fw.delaware.gov/bats/Pages/BatCount2010.aspx

Or contact Holly Niederriter or Bill Langworthy at 302-735-8651.

Delaware's LIP Biologists

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Things That Move In the Night

Who's visiting your Key Wildlife Habitat tonight?

Spring is a season bustling with activity! From calling frogs to courting birds, there are ample opportunities to see and/or hear wildlife. The Landowner Incentive Program's Key Wildlife Habitats are no exception to this - in fact, LIP habitats are established to attract a variety of species-at-risk, some of which may visit your LIP habitat! Many of these species can be seen during the day, but there are others that utilize these habitats while we sleep!

Nocturnal Birds

Delaware has many different species of birds that are active at night. LIP is working to connect forested habitats to attract a variety of woodland species such as the nocturnal Barred Owl (*above*). Wetland habitats such as LIP's Piedmont stream valley wetlands, Coastal Plain seasonal ponds and Coastal Plain forested floodplains provide shelter and food sources for species-at-risk such as the Yellow-crowned Night Heron who prefers to hunt at night. Other species may include the Common Nighthawk, Black-crowned Night Heron, and Short-eared Owl.



Larry Graff



John D. Willson, USGS

Calling Frogs

During spring and summer months, Delaware's frogs can be heard actively calling to each other at night. LIP biologists will be surveying wetland sites during this time period to identify the frog species using them (see page 3 for details). Frog species-at-risk that we hope to find include: Eastern Spadefoot Toad (*at left*), Barking Treefrog, Cope's Gray Treefrog, and Carpenter Frog.

Evening Insects

Thousands of insect species occupy LIP habitats - many are active at night. LIP's various Key Wildlife Habitats provide woods, water, and/or grasses and forbs to attract a large variety of insects looking for food and shelter. Some night-time visitors may include moths like the Yellow-banded Underwing (*at right*) and a variety of fireflies (*Photuris spp.*).



Simone Ross

Contact a LIP Biologist to learn more about nocturnal wildlife species you may see in YOUR LIP habitats!

DE Landowner Incentive Program Updates

A total of 158 landowners have received financial assistance from LIP and over 1,444 acres of wildlife habitat have been restored!

- 603 acres of grasslands established
- 726 acres reforested

- 48 acres of wetlands restored
- 67 acres of invasive species controlled

DE Landowner Incentive Program
DE Division of Fish & Wildlife
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What's All The Buzz About Pollinators?

Butterflies, bees and flies—oh my!

Nearly 90% of all plant species need the help of insects or other animals for pollination. These pollinators are necessary for healthy ecosystems and ensure that many plants are able to successfully reproduce. Grasses, wildflowers, trees, shrubs, and wetland plants established in habitats restored by LIP provide food sources and shelter for these important wildlife species.

BUTTERFLIES AND MOTHS

Butterflies and moths are important pollinators for daytime and nighttime flowering plants. Larvae of many species rely upon specific host plants. Planting a variety of wildflowers will help attract more butterfly and moth species!



BEES

Many species of bees pollinate plants for meadows, forests, gardens and agriculture. Nest sites are important for these insects - open ground nesting areas in fields, and dead tree snags will help keep pollinating bees close by.



HUMMINGBIRDS

These tiny birds are especially skilled at pollinating plants with tubular flowers. Long thin bills allow hummingbirds to reach nectar deep within a flower, which they help pollinate while feeding!



Photo by Chuck Fuller

BEETLES AND FLIES

A variety of beetle and flower fly species may visit flowering plants and assist with pollination. Larvae of many of these species are useful as pest control—eating aphids, scales, and other soft-bodied plant pests!



The Landowner Incentive Program

Key Wildlife Habitats established by LIP—such as early successional grasslands, Piedmont stream valley wetlands, and forested floodplains—provide food and shelter for local populations of pollinators and contribute to nectar corridors for migratory pollinators. Plant species such as black-eyed susan, swamp milkweed, partridge pea, little bluestem, and oak trees (several species) are among popular food sources that may be found in LIP habitats. Forested habitats and snags are also important, as many pollinating insects will overwinter under tree bark, in hollow logs, and in tree cavities. Some wildlife species-at-risk supported by these LIP habitats include: the Frosted Elfin, Canadian Owlet, Baltimore Checkerspot, and Mulberry Wing—all excellent pollinators!

Nectar Corridors

Certain pollinators, such as many species of butterflies and hummingbirds, migrate long distances every year—looking for blooming plants along the way. To ensure survival between their final destinations, nectar corridors are necessary to provide food and rest stops. These nectar corridors—areas of nectar-rich plant habitat—act as stepping stones during migration. Increased development and land use changes have degraded or eliminated many of these important nectar sites; causing decreases in populations of many migratory pollinators.

What can you do?

Plant native vegetation and provide sources of water. Large areas of native wildflowers, shrubs and grasses provide food sources and shelter for birds and both adult and larval pollinating insects. Wet mud, birdbaths, or small ponds are simple ways to provide a source of water for our local and migratory pollinators.

Spring and Summer Surveys

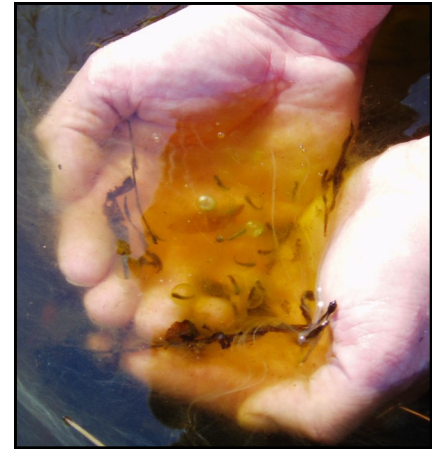
Landowner Incentive Program Monitoring Practices

Throughout the spring and summer months, LIP biologists are hard at work surveying restoration sites. Surveys are done for amphibians, birds, and plants. The data collected is used to evaluate restoration progress and restoration practices.

Amphibian Monitoring (February - June)

Frog and salamander surveys are performed at various wetland sites in an effort to identify rare or uncommon species that may utilize restored sites. Frog species are identified by calls, therefore surveys are completed after sunset, when these amphibians are most vocal. These surveys require a LIP biologist to listen to all species calling for a total of five minutes at each site. This ensures that any species disturbed upon arrival will resume calling before the biologist leaves.

Salamander surveys take place during daylight hours and involve carefully wading into shallow wetlands in search of egg masses. Egg masses are usually located 1-3 inches below the surface of the water, and are often attached to small sticks or grasses. The two main species LIP biologists are looking for are Tiger Salamander and Spotted Salamander, which have very distinct egg masses.



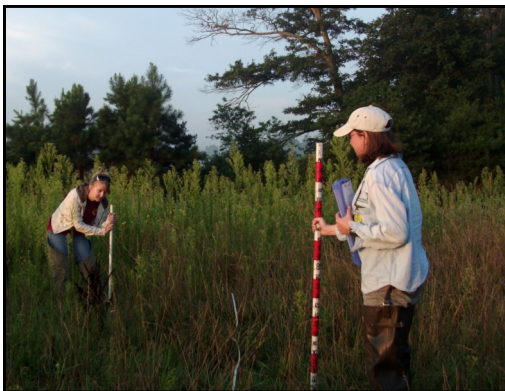
Tiger Salamander egg mass

Bird Monitoring (May-July)

Bird activity is monitored at many wetland and early successional sites (grassland and wildflower fields). Biologists make note of all bird species identified at the sites, but are specifically looking for on-site breeding activity. During the surveys, biologists will be identifying bird species both by sight and by sound.



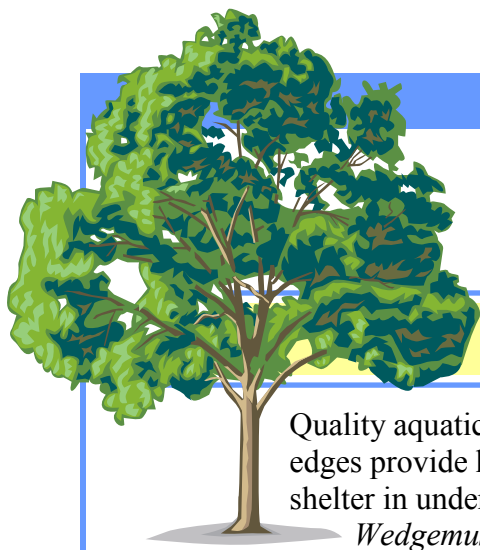
Grasshopper Sparrow nest found in Byron Jefferson's early successional grassland.



LIP biologists perform grassland surveys

Vegetation Surveys (July-September)

Plant surveys are completed at early successional sites to document plant structure. Different grassland birds require different heights and densities of grasses for movement, nesting and feeding. Data collected from these surveys will allow biologists to adjust future planting densities and plant types to ensure that habitats structure requirements are being met. LIP biologists will be identifying plant species and surveying plant density, height, and percent of coverage.



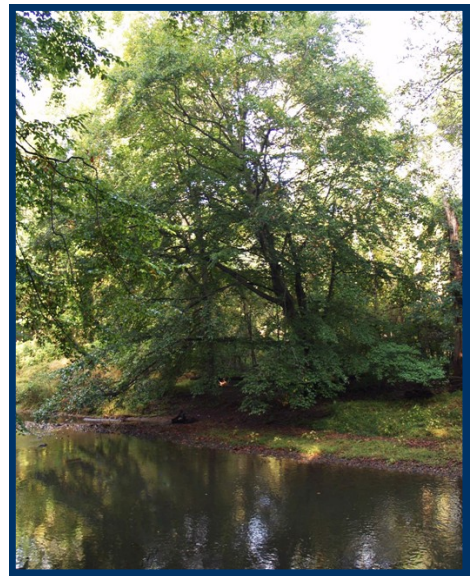
Riparian Forest Buffers

The Benefits of Vegetation Along Wetlands and Streams

Quality aquatic habitats begin with good buffers! Plants growing along stream and wetland edges provide habitat for both aquatic and terrestrial wildlife species. Many species find shelter in underwater roots, branches and plant debris including *Tiger Salamanders* and *Dwarf Wedgemussels* - both state-endangered species. Grasses and vegetation along the shoreline are used for shelter and food sources by other, semi-aquatic or terrestrial species - such as *Baltimore Checkerspot* butterflies and endangered *Bog Turtles*.

Riparian forest buffers provide the following:

- **Shade** - Shade provided by trees, shrubs, and overhanging foliage help to keep water at cooler temperatures in warm summer months which is necessary for survival of many fish species. Plant protection often helps to keep water warmer in the winter as well.
- **Shelter** - Underwater branches (snags), exposed roots, logs, plant debris, etc. provide shelter and safe areas for aquatic species to lay eggs (i.e. fish and salamanders).
- **Erosion Control** - Roots of trees, shrubs, and grasses along banks help to prevent erosion along the edges of streams and wetlands.



Trees and shrubs help to keep water cool in the summer and warm in the winter.



Underground roots provide habitat and help to prevent erosion, filter pollution and absorb excess rainwater.

- **Water Quality** - Riparian buffers help to reduce sediment and nutrient loads and help to slow water. Increased sediment loads in aquatic habitats are largely due to insufficient riparian buffers. These sediment loads can bury egg masses - often causing mass mortality. Excess sediment can also cover up plant seeds and inhibit growth. Decreased plant development results in less shelter and food sources for aquatic and semi-aquatic wildlife species.

provide habitat for semi-aquatic species at risk; such as the *Barking Treefrog* (at right) which will lay its eggs in shallow water and then return to the shelter of the surrounding forest habitat.

Visit the Habitat Management page on our DE Private Lands Assistance Program website to learn more about riparian forest buffers: www.fw.delaware.gov/dplap

